

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 10-050348

(43)Date of publication of application : 20.02.1998

1)Int.Cl.

H01M 10/40
H01M 2/16
H01M 4/04
H01M 4/68

1)Application number : 08-221880

(71)Applicant : DAINIPPON PRINTING CO LTD

2)Date of filing : 06.08.1996

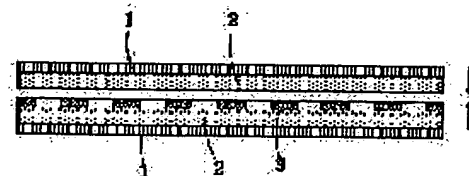
(72)Inventor : MIYAZAKI YUICHI
MIYANOWAKI SHIN
SATO KOJI
SHINDO TADAFUMI
UMEDA KAZUO

4) ELECTRODE PLATE FOR NONAQUEOUS ELECTROLYTE SECONDARY BATTERY AND ANUFACTURE THEREOF

7)Abstract:

PROBLEM TO BE SOLVED: To provide an electrode plate with separator, capable of preventing the coming off of an active material, sharply reacting with the overheating of a battery to prevent fire or explosion of the battery by previously sticking a separator to an electrode plate different from the conventional method in which a separator film is interposed between positive and negative plates.

SOLUTION: An electrode plate is prepared in such a way that an electrode-coating solution, comprising an active material and a binder is applied to a current collector 1, dried to obtain an electrode plate (2: an active material layer), and a porous separator 3 is formed on the electrode plate in a coating process, laminating process, or transferring process. As the separator material, thermoplastic resin and wax are listed, but wax is preferable, because the wax sharply react with heat to melt. The melting point of these materials is about 40-160°C. The separator is manufactured from a material melting by heat in a film-forming process or a pore-forming process.



BEST AVAILABLE COPY

GAL STATUS

.Date of request for examination]

Date of sending the examiner's decision of rejection]

Kind of final disposal of application other than the
examiner's decision of rejection or application
onverted registration]

Date of final disposal for application]

Patent number]

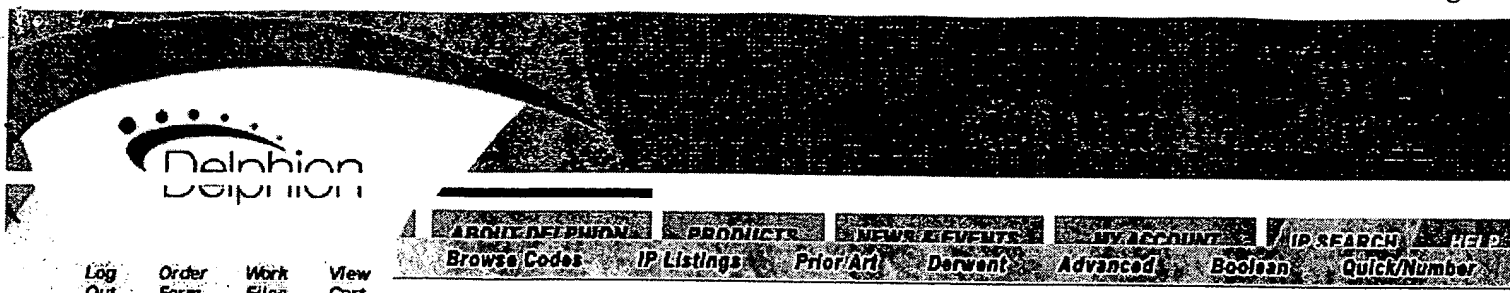
Date of registration]

Number of appeal against examiner's decision of
ejection]

Date of requesting appeal against examiner's
ecision of rejection]

Date of extinction of right]

Copyright (C); 1998,2000 Japan Patent Office



The Delphion
Integrated
View

Other Views:
[INPADOC](#)

Title: **JP10050348A2: ELECTRODE PLATE FOR NONAQUEOUS ELECTROLYTE SECONDARY BATTERY AND MANUFACTURE THEREOF**
 ► [Want to see a more descriptive title highlighting what's new about this invention?](#)

Country: **JP Japan**
 Kind: **A**

Inventor(s): **MIYAZAKI YUICHI
 MIYANOWAKI SHIN
 SATO KOJI
 SHINDO TADAFUMI
 UMEDA KAZUO**

Applicant/Assignee:
 Inquire Regarding
 Licensing

DAINIPPON PRINTING CO LTD
[News, Profiles, Stocks and More about this company](#)

Issued/Filed Dates: **Feb. 20, 1998 / Aug. 6, 1996**

Application Number: **JP1996000221880**

IPC Class: **H01M 10/40; H01M 2/16; H01M 4/04; H01M 4/68;**

Priority Number(s): **Aug. 6, 1996 JP19961996221880**

Abstract:



Problem to be solved: To provide an electrode plate with separator, capable of preventing the coming off of an active material, sharply reacting with the overheating of a battery to prevent fire or explosion of the battery by previously sticking a separator to an electrode plate different from the conventional method in which a separator film is interposed between positive and negative plates.

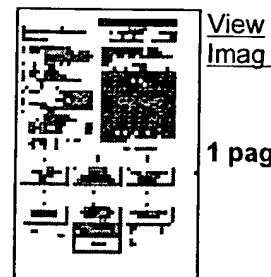
Solution: An electrode plate is prepared in such a way that an electrode-coating solution, comprising an active material and a binder is applied to a current collector 1, dried to obtain an electrode plate (2: an active material layer), and a porous separator 3 is formed on the electrode plate in a coating process, laminating process, or transferring process. As the separator material, thermoplastic resin and wax are listed, but wax is preferable, because the wax sharply react with heat to melt. The melting point of these materials is about 40-160°C. The separator is manufactured from a material melting by heat in a film-forming process or a pore-forming process.

COPYRIGHT: (C)1998,JPO

► [See a clear and precise summary of the whole patent, in understandable terms.](#)

Family: [Show known family members](#)

Other Abstract Info: none



Foreign References: No patents reference this one



Nominate this
for the Gallery...

[Subscribe](#) | [Privacy Policy](#) | [Terms & Conditions](#) | [FAQ](#) | [Site Map](#) | [Help](#) | [Contact Us](#)

© 1997 - 2002 Delphion Inc.